

ABSTRACT OF THE DISCLOSURE

5 A vibration control system for an engine or transmission cover on a motor vehicle to absorb and dissipate gear or chain-induced vibration uses a piezoelectric strain actuator with a passive resonant control system to absorb and dissipate vibration at a fixed resonance frequency of transmission and engine timing covers. Another embodiment uses an open-loop active control system, based on signals already existing on-board in the engine controller and a control map of phase, amplitude and frequency. Still another embodiment employs a hybrid system, combining open- and closed-loop control.